

Kentucky Department of Education
Science Adoption 2008-2014

Provided by the Publisher

ISBN - 9780785440451		Publisher - Pearson Education Inc. publishing as Pearson AGS Globe	
Chemistry, Student Edition			
Type - P1	Author - Packard, et al		
Copyright - 2007	Edition - 1st	Readability - Grades 3, 4	
Course - Physical Science		Grade(s) - 6, 7, 8, 9, 10, 11, 12	
Teacher Edition ISBN if applicable		9780785440468	

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Overall Recommendation:

☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

This textbook is best suited for high school students. It would be very difficult for middle school students to comprehend many of the concepts included in this text.

The text includes many examples of chemistry and its connections to technology and the world. Periodically, a side box will make a connection between chemistry and another science content area.

Much of the text is very factually focused and less conceptually focused. Be careful when assigning problems to students as the DOK varies from chapter to chapter. One chapter will have only recall questions while another chapter will include scenarios and mathematics problems.

The science myths boxes in the students' books highlight misconceptions that students may have already. For example, the difference between a common meaning for a word versus the scientific meaning.

CRITERIA

This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

- | | | | | |
|---|--|-----------------------------------|--|---|
| a) Structure and Transformation of Matter | <input checked="" type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input type="checkbox"/> N/A |
| b) Motion and Forces | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input checked="" type="checkbox"/> Little | <input type="checkbox"/> N/A |
| c) The Earth and the Universe | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input checked="" type="checkbox"/> Little | <input type="checkbox"/> N/A |
| d) Unity and Diversity | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Little | <input checked="" type="checkbox"/> N/A |

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- e) Biological Change ☐ Strong ☐ Moderate ☐ Little ☒ N/A
- f) Energy Transformation ☐ Strong ☒ Moderate ☐ Little ☐ N/A
- g) Interdependence ☐ Strong ☐ Moderate ☐ Little ☒ N/A
- 2) **Addresses content-specific enduring understandings from the related Program of Studies standards.** ☒ Strong ☐ Moderate ☐ Little ☐ N/A
- 3) **Addresses content-specific skills and concepts from the related Program of Studies standards.** ☐ Strong ☒ Moderate ☐ Little ☐ N/A
- 4) **Content addressed is current, relevant and non-trivial** ☐ Strong ☒ Moderate ☐ Little ☐ N/A
- 5) **Provides opportunities for critical thinking/reasoning** ☐ Strong ☒ Moderate ☐ Little ☐ N/A
- 6) **Strengths, Weaknesses, Comments:**
- Specific strengths-which areas/concepts are covered exceptionally well?
 - Specific weaknesses-which areas/concepts would likely require supplementing?

This book focuses upon chemistry content. Several concepts covered in the chemistry are beyond middle school standards. A middle school teacher would need to be very judicious when selecting the sections/chapters to use in class. The other content areas are addressed primarily in the side boxes in the course of the student reading.

B. Functionality & Suitability

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

- 1) **Suitability** ☒ Strong ☐ Moderate ☐ Little ☐ N/A
- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.
- 2) **Content quality** ☒ Strong ☐ Moderate ☐ Little ☐ N/A
- Free from factual errors
 - Content is presented conceptually when possible—more than a mere collection of facts
 - Content included accurately represents the knowledge base of the discipline
 - Theories/scientific models contained represent a broad consensus of the scientific community
- 3) **Connections to Literacy** ☐ Strong ☒ Moderate ☐ Little
- Note: may apply to either student or teacher editions*
- Employs a variety of reading levels and is grade/level appropriate
 - Contains pre, during, post reading activities
 - Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts

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at multiple levels of difficulty for a variety of learning styles.

- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology

☐ Strong ☒ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners

☐ Strong ☒ Moderate ☐ Little

- Provides support for ESL students
 - Provides support for differentiation of instruction in diverse classrooms
- Note: may apply only to teacher edition*

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The content is appropriate for a high school chemistry course. The literacy connections are weak and could be improved (adding in checking for comprehension etc.). Strategies for ESL students are limited but are functional for the classroom. Some strategies for ESL students are nearly identical to the additional vocabulary strategies.

The teachers edition includes pre and post reading activities.

The teacher's edition includes suggestions for additional assessment strategies.

C. Supports Inquiry and Skill Development

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Promotes Inquiry, research and Application of Learning

☐ Strong ☒ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate,

develop and extend ideas to support reasoning.
Note: may apply to either teacher or student edition

2) Skill Development

☐ Strong ☒ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

The book includes inquiry activities that allow students to investigate concepts and in some cases develop procedures. These activities are integrated into the chapters but there are few inquiry activities in a chapter or unit.

D. Supports Best Practices of Teaching and Learning

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Engages Students

☐ Strong ☒ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

☒ Strong ☐ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Each chapter includes alternative assessments. The titles for these alternative assessments are "assessments or alternative assessments" They are found in the teacher's edition.

Laboratory activities are not attention grabbing or overly interesting to students.

E. Has an Organization/ Format that Supports Learning and Teaching

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) Organizational Quality

☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

☐ Strong ☐ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The text is easy to read and is not cluttered with excess pictures. There are very few links to web sites in the student textbook. The teacher's edition includes a limited number of suggested web sites.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Includes helpful worksheets for students to practice concept mapping and vocabulary skills.